



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/037,942	01/03/2002	Alain M. Sagnard	61301A	7761
109	7590	01/10/2006	EXAMINER	
THE DOW CHEMICAL COMPANY INTELLECTUAL PROPERTY SECTION P. O. BOX 1967 MIDLAND, MI 48641-1967			RHEE, JANE J	
			ART UNIT	PAPER NUMBER
			1745	
DATE MAILED: 01/10/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/037,942

Applicant(s)

SAGNARD ET AL.

Examiner

Jane Rhee

Art Unit

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,6-12,15-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,6-12,15-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Rejections Withdrawn

1. The 35 U.S.C. 103(a) rejection of claims 1-4, 6-9, 11,21,22 over Walendy et al. has been withdrawn due to applicant's amendment filed on 10/17/2005.
2. The 35 U.S.C. 103(a) rejection of claims 5 and 10 over Walendy et al. in view of Ducharme has been withdrawn due to applicant's amendment filed on 10/17/2005.
3. The 35 U.S.C. 103(a) rejection of claim 12 over Walendy et al. in view of Friedl et al. has been withdrawn due to applicant's amendment filed on 10/17/2005.
4. The 35 U.S.C. 103(a) rejection of claim 15 over Walendy in view of Grinshpun et al. has been withdrawn due to applicant's amendment filed on 10/17/2005.
5. The 35 U.S.C. 103(a) rejection of claims 16-20 over Walendy et al. in view of Park has been withdrawn due to applicant's amendment filed on 10/17/2005.

New Rejections

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1745

5. Claims 1-4,6-11,21,22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walendy et al. (5529824) in view of Ducharme (5062244).

As to claim 1, Walendy et al. discloses a building panel comprising at least two panel domains (figure 2 numbers 4,3), wherein each panel domain has an essentially homogeneous strength and an average compressive strengths (col. 3 lines 42-64) wherein the panel has at least two panel domains having different average compressive strengths (col. 3 lines 42-64) is essentially free of a combination of hollow and solid foam strands, a uniform panel thickness (figure 2), fits fully within a cavity defined by cavity walls (col. 3 lines 21-23), and when in the cavity, the building panel has a compressive recovery that supplies sufficient pressure against the cavity walls to frictionally retain the building panel within the cavity (col. lines 27-28) wherein the panel has an edge containing a panel domain extending from a primary face to an opposing face (figure 2).

As to claim 3, Walendy et al. discloses wherein at least one panel domain is a conformable panel domain that when compressed reduces at least one dimension of the panel thereby allowing insertion of the panel into the cavity, wherein the panel has a compressive recovery that causes frictional retention of the panel within the cavity (col. 3 lines 27-28).

As to claim 4, Walendy et al. discloses at least one panel domain that is a conformable panel domain that allows the panel to reversibly bend from a planar to a nonplanar configuration (figure 2 number 4).

As to claim 6, Walendy et al. discloses that the panel has alternating conformable and rigid panel domains (figure 2 number 3,4).

Art Unit: 1745

As to claim 7, Walendy et al. discloses that the panel has a perimeter and the perimeter comprises at least one conformable panel domain (figure 2 number 4).

As to claim 8, Walendy et al. discloses a conformable panel along at least one edge (figure 2 number 4).

As to claim 9, Walendy et al. discloses that the panel domains are bands (figure 2 numbers 4,3).

As to claims 11, Walendy et al. discloses that at least one panel domain comprises a polymeric foam (col. 3 lines 43).

As to claim 21, Walendy et al. discloses that at least one edge of the panel is a conformable domain (figure 2 numbers 4).

As to claim 22, Walendy et al. discloses that the panel domains extend through the thickness of the panel (figure 2 number 3,4).

As to claim 1, Walendy et al. fail to disclose that the pressure being 100 Newtons per square meter or more and 200,000 Newton per square meter or less. Walendy et al. discloses a cavity defined by cavity walls that has a compressive recovery that supplies sufficient pressure against the cavity walls to frictionally retain the building panel within the cavity (col. 2 lines 65-66). It would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to provide Walendy et al. with a compressive recovery that supplies sufficient pressure against the cavity walls to frictionally retain the building panel within the cavity, the pressure being 100 Newtons per square

Art Unit: 1745

meter or more and 200,000 Newton per square meter or less in absence of unexpected results.

Walendy et al. further fails to disclose that the panel has a slit penetrating to a depth less than the panel thickness traverses and severs the primary faces or the face opposing the primary face.

Durcharme teaches that the panel has a slit penetrating to a depth less than the panel thickness traverses and severs the primary faces or the face opposing the primary face (figure 1 number 28 or 29) for the purpose of providing lateral compression over the full height of the insert, thereby enabling the insert to conform to the cores of different sizes and shapes (col. 3 lines 8-11).

Therefore, it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to provide Walendy et al. with a slit penetrating to a depth less than the panel thickness traverses the primary faces or the face opposing the primary face in order to provide lateral compression over the full height of the insert, thereby enabling the insert to conform to the cores of different sizes and shapes (col. 3 lines 8-11) as taught by Durcharme.

As to claim 2, Walendy et al. fail to disclose that at least two domains differ in average compressive strength by at least 5%. Walendy discloses that one of the two panel domains is made of foam and the other panel domain is made of cardboard (col. 3 lines 42-50) therefore, it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to provide at least two domains differ in average compressive strength by at least 5%.

Art Unit: 1745

As to claim 10, Walendy fail to disclose that the panel has at least one edge that comprises a tongue or groove profile. Durcharme teaches that the panel has at least one edge that comprises a tongue or groove profile for the purpose of enabling the panel to conform to the cores of different sizes and shapes (col. 4 lines 55-58).

Therefore, it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to provide Walendy et al. with a tongue or groove profile in order to enable the panel to conform to the cores of different sizes and shapes (col. 4 lines 55-58) as taught by Durcharme.

6. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Walendy et al. in view of Durcharme and in further view of Friedl et al. (5993932).

Walendy and Durcharme discloses the panel described above. Walendy fail to disclose that each of the panel domain comprises a polymeric foam. Friedl et al. teaches that each of the panel domains comprises polymeric foam for the purpose of to reduce the dimensioning of the thermal insulating layer in vehicle interiors thus achieving material and cost saving(col. 3 lines 13-16).

Therefore, it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to provide Walendy with each of the panel domains comprises polymeric foam in order to reduce the dimensioning of the thermal insulating layer in vehicle interiors thus achieving material and cost saving (col. 3 lines 13-16) as taught by Friedl et al.

Art Unit: 1745

8. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Walendy et al. in view of Durcharme and in further view of Grinshpun et al. (6226943).

Walendy et al. and Durcharme discloses the panel described above. Walendy et al. fail to disclose that at least one panel domain has an open cell content of 5 percent or 50 percent or more according to American Society for Testing and Materials method D2856A . Grinshpun et al. teaches disclose that at least one panel domain has an open cell content of 5 percent or 50 percent or more according to American Society for Testing and Materials method D2856A (col. 5 lines 42-48) for the purpose of obtaining desired insulating properties of the foam (col. 5 lines 54-55).

Therefore, it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to provide Walendy et al. with at least one panel domain has an open cell content of 5 percent or 50 percent or more according to American Society for Testing and Materials method D2856A in order to obtain desired insulating properties of the foam (col. 5 lines 54-55).

9. Claims 16-17,19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walendy et al. in view of Durcharme and in further view of Park (WO0015697).

Walendy et al. and Durcharme discloses the panel described above. Walendy et al. fail to disclose that at least one panel domain comprises

Art Unit: 1745

coalesced polymeric foam strands and wherein the foam strands comprise polypropylene. Walendy et al. fail to disclose that at least one panel domain comprises coalesced polymeric foam strands having interstrand spaces.

Walendy et al. fail to disclose foam's average cell diameter within the range of 0.01 to 10mm.

Park teaches coalesced polymeric foam strands that comprise polypropylene (page 4 line 12) and have interstrand spaces (page 9 line 30), an open cell content of 84 percent with diameter of .4mm (page 21 lines 26-29) for the purpose providing sound deadening properties satisfactory for demanding applications which have mechanical strength, which are economical to manufacture and which are hydrolytically stable.

Therefore, it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to provide Walendy et al. with coalesced polymeric foam strands that comprise polypropylene and have interstrand spaces, an open cell content of 84 percent with diameter of .4mm in order to provide sound deadening properties satisfactory for demanding applications which have mechanical strength, which are economical to manufacture and which are hydrolytically stable (page 2 lines 19-21) as taught by Park.

Allowable Subject Matter

7. Claim 18 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art fail to

Art Unit: 1745

disclose or suggest at least one panel domain that comprise coalesced polymeric foam strands having interstrand spaces.

Response to Arguments

8. Applicant's arguments filed 10/17/2005 have been fully considered but they are not persuasive.

In response to applicant's argument that the slit must facilitate bending of the panel into a non-planar configuration, the slit does not have to facilitate bending of the panel into a non planar configuration. First of all, the asserted functional definition provided by the applicant, "such slits facilitate bending a building panel into a non-planar configuration" does not connote that the "slits *must* facilitate bending of the panel into a non-planar configuration. The slits just increase the likelihood of bending the panel into a non-planar configuration and not positively bend the panel into a non-planar configuration. Secondly, the limitation that the slits facilitate bending a building panel into a non-planar configuration is not addressed in claims therefore, the slits do not have to bend the panel into a non-planar configuration.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5

Art Unit: 1745

USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Walendy et al. discloses a foam insert for a hollow space (figure 2) and Ducharme discloses a foam insert for a hollow space (figure 1). Walendy et al. further fails to disclose that the panel has a slit penetrating to a depth less than the panel thickness traverses and severs the primary faces or the face opposing the primary face. Durcharme teaches that the panel has a slit penetrating to a depth less than the panel thickness traverses and severs the primary faces or the face opposing the primary face (figure 1 number 28 or 29) for the purpose of providing lateral compression over the full height of the insert, thereby enabling the insert to conform to the cores of different sizes and shapes (col. 3 lines 8-11). Therefore, it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to provide Walendy et al. with a slit penetrating to a depth less than the panel thickness traverses the primary faces or the face opposing the primary face in order to provide lateral compression over the full height of the insert, thereby enabling the insert to conform to the cores of different sizes and shapes (col. 3 lines 8-11) as taught by Durcharme.

In response to applicant's argument that Walendy et al. fail to disclose that the panel domains extend through the thickness of the panel, Walendy et al. teaches that the panel domains extend through the thickness of the panel in figure 2 numbers 3 and 4. Applicant did not claim that the panels had to extend entirely through the thickness of the panel.

Conclusion

Art Unit: 1745

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jane Rhee whose telephone number is 571-272-1499. The examiner can normally be reached on M-F 9-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1745

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jane Rhee
December 29, 2005



DAI-WEI YUAN
PRIMARY EXAMINER